

OPERATION OF STORAGE/TREATMENT TANKS
Inspections Requirements Start at Section 5.4

DOCUMENT CLASSIFICATION
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EG&G ROCKY FLATS PLANT
HAZARDOUS WASTE
REQUIREMENTS MANUAL
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TITLE:
SECTION 12 0
OPERATION OF
STORAGE/TREATMENT TANKS

Approved By.


J. M. Kersh, Associate General Manager
Environmental & Waste Management

OPERATION OF STORAGE/TREATMENT TANKS

1.0 PURPOSE

This procedure contains the operating requirements for managing hazardous and mixed waste in Storage/Treatment Tanks.

2.0 SCOPE

This procedure is applicable plantwide.

3.0 TERMS AND DEFINITIONS

3.1 ALARM SYSTEM

An audible or visual detection device that detects any unusual, alarming, or emergency condition.

3.2 ANCILLARY EQUIPMENT

Any device including, but not limited to, piping, fittings, flanges, valves, and pumps that is used to distribute, meter, or control the flow of hazardous waste from its point of generation to a storage/treatment tank(s)

3.3 FACILITIES ENGINEERING

A branch of the Engineering Division. This group performs integrity assessments and obtains certifications of repair for existing tank systems. They also ensure that the design and installation of all new tank systems complies with applicable regulatory requirements.

3.4 FREEBOARD

The vertical distance between the top of a container, tank or surface impoundment and the surface of the waste contained therein.

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3.5 HAZARDOUS WASTE:

A waste as defined in the Colorado Department of Health (CDH) regulations that exhibits certain hazardous characteristics or is a "listed" hazardous waste in the regulations. This includes mixtures of hazardous waste and any other material, such as mixtures with sanitary waste or radioactive waste. Specifically included in the definition of hazardous waste are mixtures with low level waste (LLW), transuranic waste (TRU) and residues.

3.6 MONITORING DEVICE:

A device used to detect content tank parameters such as levels, temperature, pressure and pH.

3.7 NEW TANK SYSTEM:

A tank system or component that will be used for the storage/treatment of hazardous waste and is subject to new tank requirements.

3.8 OPERATING DAY:

Monday through Friday, regardless if hazardous waste is transferred to or from the tank, and any weekend or holiday in which hazardous waste is being transferred to or from the tank

3.9 OVERFILL PREVENTION CONTROL

Physical controls, such as level sensing devices and automatic feed cutoff systems, designed to detect and stop or divert the flow of liquid into a tank when the tank is being filled

3.10 PERMITTING AND COMPLIANCE DIVISION

A Division of Waste Programs which provides oversight and guidance on all hazardous waste management activities to verify compliance with all applicable federal, state, and local laws, regulations orders, and policies

3.11 RESOURCE CONSERVATION AND RECOVERY ACT (RCRA)

The Federal law originally passed in 1976 and amended in 1984 which, in part, addressed the generation, treatment, storage, and disposal of hazardous wastes in order to protect human health and the environment

3.12 WASTE CUSTODIAN:

The individual designated to manage the operation of a RCRA-Regulated unit

3.13 RCRA PART B OPERATING PERMIT

A permit issued by the CDH which defines the operating conditions for all RCRA Regulated Storage/Treatment Units at Rocky Flats

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3 14 RCRA PERMITTING:
A branch within the Permitting and Compliance Division. This group performs application, revision, review and modification to the RCRA Part A Application and the Part B Operating Permit.

3.15 RCRA-REGULATED UNIT:
A contiguous area on or in which hazardous waste is placed, or the largest area in which there is significant likelihood of mixing waste constituents in the same area. Examples include an incinerator, a tank and its associated piping and underlying containment system and a container storage area. A container alone does not constitute a unit; the unit includes containers and the land or pad upon which they are placed.

93 DMK-000750 3.16 RELEASE:
Release means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, or dumping of a hazardous substance, hazardous material, or hazardous waste (including mixed waste and residue) in any building or to the environment. A release also includes the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance, pollutant, or contaminant into the environment.

3.17 SECONDARY CONTAINMENT
A physical system designed to prevent migration of hazardous waste out of the original tank or container into the soil, groundwater, or surface water.

3 18 SPILL PREVENTION CONTROLS
Physical controls, such as check-valves or dry disconnect couplings, designed to prevent the inadvertent spilling of liquid from the source while filling a tank.

3 19 SUMP
A pit or reservoir which meets the definition of a tank and troughs/trenches connected to it that serve to collect hazardous waste for transport to a hazardous waste storage/treatment tank.

3 20 TANK
A stationary device, constructed primarily of non-earthen materials (e.g. wood, concrete, steel, plastic), designed to contain an accumulation of hazardous waste.

3 21 TANK SYSTEM
A hazardous waste storage/treatment tank and its associated ancillary equipment and containment system.

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3.22 TREATMENT:

Any method, technique, or process, including neutralization or incineration, designed to change the physical, chemical, or biological character or composition of a hazardous waste, so as to neutralize such a waste or to render such a waste less hazardous, safer for transport, amenable for recovery or reuse, amenable for storage, or reduced in volume

3.23 RCRA UNIT INFORMATION SHEET:

A document which lists information specific to an individual RCRA-Regulated area

3.24 WASTE GUIDANCE:

A branch within the Permitting and Compliance Division. This group provides guidance to plant personnel on matters relating to hazardous waste management

3.25 WASTE SURVEILLANCE:

A branch within the Permitting and Compliance Division. The staff conducts plant-wide inspections on RCRA-Regulated units to assess compliance with hazardous waste management procedures

4.0 RESPONSIBILITIES

4.1 AREA OPERATIONS MANAGERS

Operations managers whose areas of authority include Storage/Treatment Tanks

- Obtaining authorization for modifying Storage/Treatment Tanks
- Designating Waste Custodians
- Maintaining a current list of Waste Custodians
- Ensuring area personnel are trained in accordance with the RCRA TRAINING REQUIREMENTS PROCEDURE
- Ensuring that RCRA Unit Information Sheets are developed, implemented and up to date

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4.2 WASTE CUSTODIANS

Custodians designated to manage the operation of a Storage/Treatment Tanks are responsible for:

- Implementing and complying with the requirements found in section 5.0 of this procedure and the RCRA Part B Permit when approved
- Immediate notification to RCRA Permitting of any proposed changes to Storage/Treatment Tanks. These changes include but are not limited to physical changes to the unit, process changes or changes in type or amount of hazardous waste being stored. The Custodian must immediately notify RCRA Permitting of any proposed changes to waste analysis.

4.3 AREA PERSONNEL

All Employees who transfer hazardous waste to or from the Storage/Treatment Tank are responsible for:

- Following procedures outlined in this document and the requirements in the RCRA Part B Permit once approved
- Consulting with the Waste Custodian of the Storage/Treatment Tank should any questions arise concerning the operation of the unit

4.4 WASTE GUIDANCE

The Waste Guidance group is responsible for providing waste management guidance

4.5 WASTE SURVEILLANCE

The Waste Surveillance group is responsible for conducting inspections of Storage/Treatment Tanks for compliance with section 5.0 of this procedure and the requirements of the RCRA Part B Permit once approved

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4 6 RCRA PERMITTING GROUP

The RCRA Permitting Group is responsible for

- The preparation of and modifications to the RCRA Part A and Part B permit applications or operating permits. Permitting and Compliance is also responsible for ensuring accuracy and appropriateness of proposed permits and modifications
- Verifying compliance with applicable regulations regarding tank assessments, secondary containment, and recertification of tank systems in which changes or repairs to the tank system were made.
- Authorizing areas and designating Unit numbers
- Authorizing additions, modifications or deletions of Storage/Treatment Tanks.

4 7 FACILITIES ENGINEERING

Facilities Engineering is responsible for maintaining a program to ensure that tank and ancillary piping design, fabrication, installation, testing, repair and integrity assessments are performed in accordance with the current requirements of 6 CCR 1007-3 Parts 264 and 265 and 7 CCR 1101-14. This includes integrity assessments of all existing above ground tanks and annual tightness testing of underground storage tanks. They are also responsible for obtaining certifications of repair on such systems which are found to be leaking or unfit for use.

4 8 FACILITIES INSPECTION

Facilities Inspection is responsible for performing periodic tank inspections and witnessing leak testing supporting the tank integrity assessment and/or repair process in accordance with plant standard SM-137 and FI-6004.

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5.0 OPERATIONAL REQUIREMENTS

5.1 AREA REQUIREMENTS

NOTE: CONTACT RCRA PERMITTING BEFORE ANY CHANGES ARE MADE TO THE TYPE, AMOUNT OR CONFIGURATION OF WASTE BEING STORED/TREATED IN THESE UNITS. THE MANAGEMENT OF ALL STORAGE/TREATMENT TANKS IS EXPLICITLY CONTROLLED BY THE ROCKY FLATS RCRA PERMIT APPLICATIONS. WHEN RCRA OPERATING PERMITS ARE ISSUED, THEY WILL SUPERCEDE THE PREVIOUS PERMITS. ALL STORAGE/TREATMENT TANKS MUST THEN BE IN COMPLIANCE WITH THE SPECIFIC CONDITIONS OF THE RCRA OPERATING PERMIT.

5.1.1 Each Storage/Treatment Tank must be permanently marked with the RCRA Unit reference number.

5.1.2 The tank and ancillary equipment must have secondary containment provided by one of the following devices: a liner, a vault, a double-walled tank, or an equivalent device approved by RCRA Permitting

5.1.2.1 Secondary containment must be structurally sound e.g., no cracks or evidence of leaks.

5.1.2.2 Secondary containment must be provided with a leak-detection system capable of detecting a release or accumulated liquids within 24 hours. This leak detection system may consist of daily visual inspections. If visual inspections are the methods used for leak detection, they must be performed to ensure that no more than 24 hours elapse between inspections.

5.1.2.3 Accumulated liquids including precipitation in the secondary containment must be removed within 24 hours.

5.1.3 Tanks which manage ignitable or reactive hazardous wastes must be stenciled with the words "NO SMOKING" or if impracticable, have a "NO SMOKING" sign posted conspicuously.

5.2 TANK REQUIREMENTS

5.2.1 All tanks and ancillary equipment used in the collection of hazardous waste must be in good condition (e.g., free from cracks, holes, and leaks).

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5.2.2 Overfill prevention controls must be in place and operable

5 2.3 Spill prevention controls must be in place and operable.

5 2.4 Tanks taken out of service must meet the following requirements.

5.2.4.1 Provide written notice to RCRA Permitting, Building T130C, X7752, when an Interim Status or permitted storage tank is removed from service for any reason.

5.2.4.2 Install administrative and physical controls to prevent the inadvertent transfer of waste into the tank, on all fill lines, drain lines, and valves for the tank removed from service. Controls include use of "Out-of-Service" tags, administrative locks, etc

5.3 WASTE MANAGEMENT REQUIREMENTS

5 3 1 Any release from the tank or its associated ancillary equipment requires the operator to immediately cease use of the tank system and immediately notify Permitting and Compliance

5 3 2 If a release occurs, take immediate action as described in Section 4, "Response and Reporting Procedure," of this manual. Releases greater than or equal to one pound (or one pint of aqueous liquids) and all gaseous releases must be reported immediately to the next level of management (supervisor, Operations Manager, or Shift Superintendent) as available. Releases less than one pound (or one pint of aqueous liquid) must be immediately reported to area supervision and cleaned up within 24 hours. If the waste is not removed within 24 hours, immediately notify Permitting and Compliance

5 3 3 Only authorized hazardous wastes are allowed to be accumulated. Changes to the type of hazardous waste being accumulated require approval from RCRA Permitting

5 3 4 Hazardous wastes placed in the tank system must be compatible with each other

5 3 5 The tank system's material of construction must be compatible with the hazardous wastes being accumulated

5 3 6 Ignitable or reactive hazardous wastes must not be placed in a tank without prior approval from RCRA Permitting

5 3 7 Adequate spacing must be provided around tank to allow access of emergency equipment

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5 4 INSPECTION REQUIREMENTS

- 5.4.1 The Waste Custodian of a Storage/Treatment Tank must perform daily inspections covering safety and emergency equipment, hazardous waste tanks, and structural features.
- 5 4.2 The inspection must include a thorough overview of the surrounding area to ensure no leaks are occurring from the tank system
- 5 4 3 The attached inspection logsheet must be used for daily inspection of the Storage/Treatment Tank. Refer to Figure A for a copy of this logsheet.
- 5 4 4 Inspections must be conducted each operating day. If visual inspections are the methods used for leak detection, they must be performed to ensure that no more than 24 hours elapse between inspections.
- 5.4 4.1 Arrangements must be made to ensure inspections are performed during holidays, vacations, and shutdowns.
- 5 4 5 Inspections must be performed by the Waste Custodian or designated individual appointed by the Custodian who is trained and knowledgeable
- 5 4 6 The inspection logsheet must be filled out completely including any problems or corrective actions necessary to remediate these problems
- 5 4 6 1 A "No" response on the inspection logsheet requires an explanation of problems corrective actions taken, and the date the corrective action is completed in the comments section
- 5 4 7 For all problems noted during an inspection a corrective action must also be performed immediately when possible, or specify a work package number and document this information on the form
- 5 4 8 For all corrective actions that require a work request Building Management must note the words "RCRA Compliance Action" on the work request

5 5 RECORDKEEPING REQUIREMENTS

- 5 5 1 Inspections conducted in Section 5 4 must be documented
- 5 5 2 If treatment is conducted in the tank the Waste Custodian must also keep logs of the date and method of treatment and the results of any fingerprint analysis performed

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5.5 3 Unit logs must be kept indefinitely

5.5.3.1 Unit logs for the previous 3 years and those currently in use must be kept at the unit or in the Waste Custodian's office

5.5.3 2 Logs must be maintained in a neat and chronological fashion and must be readily available for review.

5.5 3 3 Logs are to contain the original forms not copies

5 5 3 4 Logs must be filled out using black indelible ink.

5.5 4 Corrections on logsheets must only be made by drawing a line through the error and initialing the change.

5 5.5 Facilities Engineering maintains records of tank design, fabrication and installation documentation, integrity assessments, leak tests and repair documentation

5 5 6 Facilities Inspection maintains tank inspection reports for tank inspections and leak tests (per Section 4 8) and inspector qualification records

5 6 RCRA UNIT INFORMATION SHEET REQUIREMENTS

5 6 1 All Storage/Treatment Tanks must have a RCRA Unit Information Sheet in place and available for reference and/or inspection

5 6 2 The attached RCRA Unit Information Sheet must be completed and posted at the RCRA-regulated area Refer to Figure B for a copy of this form Any changes in the operation of the unit require revision to the RCRA Unit Information Sheet

5 6 3 RCRA UNIT INFORMATION SHEET CONTENT REQUIREMENTS
The following required information must be complete, accurate, up to date and at a minimum must include

5 6 3 1 RCRA UNIT ID NO

5 6 3 2 TYPE OF AREA (e g , Satellite, 90 Day, Storage, etc)

5 6 3 3 CAPACITY OF AREA (e g , <55 gallons cu yds , etc)

5 6 3 4 BUILDING NO

5 6 3 5 ROOM NO or LOCATION

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- 5.6.3.6 PHYSICAL DESCRIPTION OF HAZARDOUS WASTE:
- a) Generating process. If the area is regulated as a Treatment Unit, the process must be described in detail.
 - b) Radioactive or nonradioactive?
 - c) Hazardous waste types accumulated, stored or treated. List the specific hazardous waste constituents. If too numerous to list here, use EPA waste codes listed in d) below.
 - d) EPA waste code(s) (F001, D001, etc.)
 - e) RCRA compatibility code
- 5.6.3.7 TANK TYPE AND SIZE
- 5.6.3.8 OPERATIONS MANAGER: Name, location, extension (include pager number, if applicable).
- 5.6.3.9 WASTE CUSTODIAN: Name, location, extension (include pager number, if applicable)
- 5.6.3.10 INSPECTION SCHEDULE: Define when inspections will be performed (e.g., weekly, daily, each operating day, etc.) and the normal day of week, if applicable.
- 5.6.3.11 SECONDARY CONTAINMENT: Describe the secondary containment system for this Unit
- 5.6.3.12 MONITORING AND OVERFILL PREVENTION CONTROL EQUIPMENT Describe the equipment in place.
- 5.6.3.13 EMERGENCY AND SPILL RESPONSE EQUIPMENT Specify the location of emergency and spill response equipment available
- 5.6.3.14 SPILL AND EMERGENCY RESPONSE CONTACTS List all emergency contacts and their phone numbers. At a minimum these must include the Shift Superintendent and Fire Department

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RCRA UNIT ID NO _____

TYPE OF AREA _____

CAPACITY OF AREA _____

BUILDING NO _____ ROOM _____

PHYSICAL DESCRIPTION OF HAZARDOUS WASTE.
(Describe type here)

HAZARDOUS CONSTITUENT(S) _____

EPA WASTE CODE(S) _____

COMPATIBILITY CODE(S) _____

CONTAINER TYPE and SIZE _____

WASTE DESTINATION _____

INSPECTION SCHEDULE _____

SPECIAL HANDLING INSTRUCTIONS

EMERGENCY AND SPILL RESPONSE EQUIPMENT LOCATION

NOTE Spills greater than 1 pint or 1 pound must be reported immediately to the Shift Superintendent. Spills less than 1 pint or 1 pound must be immediately reported to area supervisor and promptly cleaned up.

PERSONNEL ASSEMBLY AREA _____

EMERGENCY CONTACTS

OPERATIONS MANAGER _____ Ext _____ Pager _____

RCRA CUSTODIAN _____ Ext _____ Pager _____

SHIFT SUPERINTENDENT _____ Ext _____ Pager _____

FIRE DEPARTMENT _____ Ext _____ Pager _____

FIGURE B RCRA Tank Information Sheet

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